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EXAMINER

VAN HANDEL, MICHAEL P

ART UNIT	PAPER NUMBER
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2424

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/882,485	Applicant(s) CONNELLY, JAY H.	
	Examiner MICHAEL VAN HANDEL	Art Unit 2424	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 November 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 139-219 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 139-219 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/23/2009 has been entered.

Miscellaneous

2. The examiner would like to remind Applicant that, as noted by the examiner in our telephone interview dated 1/29/2010, Applicant may use the language "non-transitory machine-readable medium" rather than "machine-readable medium excluding carrier wave signals" for the article of manufacture claims.

Response to Amendment

3. This action is responsive to an Amendment filed 11/23/2009. Claims **139-219** are pending. Claims **1-138** are canceled. Claims **139-219** are new.

Response to Arguments

4. Applicant's arguments regarding claims **139-197**, filed 11/23/2009, have been considered, but are moot in view of the new ground(s) of rejection.

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5. Applicant's arguments regarding claims **198-219**, filed 11/23/2009, have been fully considered, but they are not persuasive.

Regarding claims **198, 208, 211, 214, and 217**, the applicant argues that, while the instant application involves a five-step process, Dunn involves only a two-step process. The examiner respectfully disagrees. Dunn discloses that when a STB tunes to a VOD channel, a continuous loop of "new releases" trailers are displayed (col. 6, l. 54-61). The examiner interprets these trailers as including only a portion of the full content. Dunn discloses that the viewer can create a customized list of personal favorites that he/she might wish to watch some day. As the viewer browses the trailers, the viewer can simply click the "add to list" button and the program ID of the video content program is added to the customized viewer list, which is kept at the headend (col. 7, l. 21-29). The examiner interprets this as receiving demand data from the client in response to the content descriptors. Later, the user requests their customized list and the headend retrieves and displays the trailers stored in the user list (col. 10, l. 35-44). The preview trailers of the customized list are then displayed to the user (col. 9, l. 59-67 & col. 10, l. 35-44). The examiner interprets this to be broadcasting further content descriptors to the client in response to the demand data, the further content descriptors also including only a portion of the full further content corresponding to the further content descriptors. The user can then order the full content associated with any of the trailers on their customized list (col. 7, l. 11-15 & col. 11, l. 29-36). The examiner interprets this to be receiving further demand data from the client in response to the further content descriptors. In response to the order, the full program is delivered to the user (col. 11, l. 36-40). The examiner interprets this to be broadcasting the full content to the client corresponding to some of the further content descriptors in response to the further demand data

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for presentation on a client device. The examiner notes that this procedure is also a five-step process. As such, the examiner maintains that Dunn meets the limitations of claims 198, 208, 211, 214, and 217, as currently claimed.

Specification

6. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not). Here, the examiner notes that there are two claims numbered 195 and two claims numbered 197. The examiner recommends that one claim of each of the two sets of claims be cancelled.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims **141, 152, 157, 161, 198-219** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

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Referring to claims **141** and **161**, the examiner fails to find support in Applicant's specification for the phrase "broadcasting a trigger signal *only* if the server is ready to receive demand data feedback" (italicized for emphasis). Page 6, paragraph 64 of the published version of Applicant's specification (US 2003/0005451) states that a trigger signal is broadcast to the clients when the server is ready to receive demand data feedback from the clients; however, it does not say *only* when it is ready. That is, it is conceivable that a trigger may be sent under other circumstances as well.

Referring to claims **152** and **157**, the examiner fails to find support in Applicant's specification for the phrase "the content descriptor file comprises attributes to describe content that is available for content, but does not include the content or clips of the content." P. 3, paragraph 38 of US 2003/0005451 states that content descriptors include meta-data or attribute value pairs that are used to describe the available content. Referring to the next stage of processing, p. 4, paragraph 45 of US 2003/0005451 states that the further descriptive content includes portions of the content. Nowhere does Applicant's specification state that in either of these stages of processing the content descriptor file comprises attributes to describe content that is available for content, but does not the content or clips of the content.

Referring to claims **198**, **208**, **211**, **214**, and **217**, the examiner fails to find support in Applicant's specification for "content descriptors including only a portion of the full content" or "further content descriptors also including only a portion of the full further content," as currently claimed. P. 4, paragraph 45 of US 2003/0005451 states that the further descriptive content includes portions of the content, for example, movie trailers, box art, awards, movie scenes or the

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like. Paragraph 45 does not state; however, that the content descriptors contain only this portion of the full content and nothing else.

Claims **199-207, 209, 210, 212, 213, 215, 216, 218, and 219** are rejected as being dependent on the aforementioned independent claims.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims **198, 199, 202-209, 211, 213, 214, 217, 219** are rejected under 35 U.S.C. 102(b) as being anticipated by Dunn (of record).

Referring to claim **198**, Dunn discloses a method comprising:

- broadcasting content descriptors to a client, the content descriptors including only a portion of the full content corresponding to the content descriptors (new releases trailers are displayed)(col. 6, l. 54-61 & col. 7, l. 59-67);
- receiving demand data from the client in response to the content descriptors (the user adds the program to a customized list of personal favorites stored at the headend)(col. 7, l. 21-29);
- broadcasting further content descriptors to the client in response to the demand data, the further content descriptors also including only a portion of the full further content

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- corresponding to the further content descriptors (the user customized list previews are displayed)(col. 9, l. 59-67 & col. 10, l. 35-44);
- receiving further demand data from the client in response to the further content descriptors (the user orders the program)(col. 7, l. 11-15 & col. 11, l. 29-36); and
 - broadcasting the full content to the client corresponding to some of the further content descriptors in response to the further demand data for presentation on a client device (the program is delivered to the user)(col. 11, l. 36-40).

Referring to claim **199**, Dunn discloses the method of claim 198, wherein the content comprises video entertainment programming (col. 4, l. 47-52).

Referring to claim **202**, Dunn discloses the method of claim 198, further comprising prioritizing the content in response to the demand data received from the client (col. 7, l. 21-29; col. 9, l. 59-67; & col. 10, l. 35-44) and wherein broadcasting full content comprises broadcasting full content prioritized (col. 7, l. 11-15 & col. 11, l. 29-40).

Referring to claims **203**, **213**, and **219**, Dunn discloses the method/system/article of claims 198, 211, and 217, wherein the demand data in response to the content descriptors is automatically generated transparent to the client based on an amount of content consumed by the client (the user interface unit informs the headend to associate the program ID of the added program with the viewer ID in join table 136)(col. 10, l. 25-27) and wherein the further demand data is generated manually by the client (col. 7, l. 11-15 & col. 11, l. 33-35).

Referring to claim **204**, Dunn discloses the method of claim 198, wherein receiving demand data comprises receiving a demand table, wherein the demand table is determined based on rankings of the content descriptors and existing content at a client (col. 7, l. 21-29).

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Referring to claim **205**, Dunn discloses the method of claim 198, wherein the content descriptors include metadata to describe the content (col. 5, l. 54-67).

Referring to claim **206**, Dunn discloses the method of claim 198, wherein the received further demand data includes feedback received from the client, the feedback including a demand indicating a level of desirability for the content (col. 7, l. 21-29).

Referring to claim **207**, Dunn discloses the method of claim 198, further comprising broadcasting a content descriptor schedule signal to the client to indicate that a content descriptor file is to be broadcast at a specified broadcast time (col. 10, l. 3-9, 48-56) and wherein the broadcasting content descriptors comprises broadcasting content descriptors at the specified broadcast time (col. 10, l. 53-56).

Referring to claim **208**, Dunn discloses an article of manufacture comprising a machine-readable medium excluding carrier wave signals having instructions stored therein which when executed by a computer, cause the computer to perform operations comprising:

- broadcasting content descriptors to a client, the content descriptors including only a portion of the full content corresponding to the content descriptors (new releases trailers are displayed)(col. 6, l. 54-61 & col. 7, l. 59-67);
- receiving demand data from the client in response to the content descriptors (the user adds the program to a customized list of personal favorites stored at the headend)(col. 7, l. 21-29);
- broadcasting further content descriptors to the client in response to the demand data, the further content descriptors also including only a portion of the full further content

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- corresponding to the further content descriptors (the user customized list previews are displayed)(col. 9, l. 59-67 & col. 10, l. 35-44);
- receiving further demand data from the client in response to the further content descriptors (the user orders the program)(col. 7, l. 11-15 & col. 11, l. 29-36); and
 - broadcasting the full content to the client corresponding to some of the further content descriptors in response to the further demand data for presentation on a client device (the program is delivered to the user)(col. 11, l. 36-40).

Referring to claim **209**, Dunn discloses the article of claim 208, wherein the demand data received from the client is received staggered, wherein the staggering is based on a last time the client sent feedback to the server (the program is added to the list of favorites at a different time than the previous program was added)(col. 7, l. 22-29).

Referring to claim **211**, Dunn discloses a system comprising:

- a server coupled to a client, the server having a storage medium and an integrated circuit coupled via a bus including a multi-drop bus (Fig. 1), wherein the system is configured to perform operations comprising:
 - broadcasting content descriptors to a client, the content descriptors including only a portion of the full-content corresponding to the content descriptors (new releases trailers are displayed)(col. 6, l. 54-61 & col. 7, l. 59-67);
 - receiving demand data from the client in response to the content descriptors (the user adds the program to a customized list of personal favorites stored at the headend)(col. 7, l. 21-29);

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- broadcasting further content descriptors to the client in response to the demand data, the further content descriptors also including only a portion of the full further content corresponding to the further content descriptors (the user customized list previews are displayed)(col. 9, l. 59-67 & col. 10, l. 35-44);
- receiving further demand data from the client in response to the further content descriptors (the user orders the program)(col. 7, l. 11-15 & col. 11, l. 29-36); and
- broadcasting the full content to the client corresponding to some of the further content descriptors in response to the further demand data for presentation on a client device (the program is delivered to the user)(col. 11, l. 36-40).

Referring to claim **214**, Dunn discloses a method comprising:

- receiving content descriptors at a client from a broadcaster, the content descriptors including only a portion of the full content corresponding to the content descriptors (new releases trailers are displayed)(col. 6, l. 54-61 & col. 7, l. 59-67);
- generating demand data at the client in response to the content descriptors and sending the demand data to the broadcaster (the user adds the program to a customized list of personal favorites stored at the headend)(col. 7, l. 21-29);
- receiving further content descriptors at the client in response to the demand data, the further content descriptors also including only a portion of the full further content (the customized list previews are displayed)(col. 9, l. 59-67 & col. 10, l. 35-44);

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- generating further demand data at the client in response to the further content descriptors corresponding to the further content descriptors and sending the further demand data to the broadcaster (the user orders the program)(col. 7, l. 11-15 & col. 11, l. 29-36); and
- receiving the full content at the client corresponding to some of the further content descriptors in response to the further demand data for presentation on a client device (the program is delivered to the user)(col. 11, l. 36-40).

Referring to claim **217**, Dunn discloses an article of manufacture comprising a machine-readable medium excluding carrier wave signals having instructions stored therein which when executed by a computer, cause the computer to perform operations comprising:

- receiving content descriptors at a client from a broadcaster, the content descriptors including only a portion of the full content corresponding to the content descriptors (new releases trailers are displayed)(col. 6, l. 54-61 & col. 7, l. 59-67);
- generating demand data at the client in response to the content descriptors and sending the demand data to the broadcaster (the user adds the program to a customized list of personal favorites stored at the headend)(col. 7, l. 21-29);
- receiving further content descriptors at the client in response to the demand data, the further content descriptors also including only a portion of the full further content corresponding to the further content descriptors (the user customized list previews are displayed)(col. 9, l. 59-67 & col. 10, l. 35-44);

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- generating further demand data at the client in response to the further content descriptors and sending the further demand data to the broadcaster (the user orders the program)(col. 7, l. 11-15 & col. 11, l. 29-36); and
- receiving the full content at the client corresponding to some of the further content descriptors in response to the further demand data for presentation on a client device (the program is delivered to the user)(col. 11, l. 36-40).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims **139-141, 143-152, 154-157, 159-161, 163-174, 176, 177, 182-197** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishizaki in view of Skaringer et al.

Referring to claim **139**, Ishizaki discloses a method, comprising:

- broadcasting a content descriptor file to a client together with other clients of a segment, the content descriptor file describing available media content that may be broadcast to the client (a program reservation table is delivered to all requesting subscribers of a particular distribution route indicating programs currently requested for distribution)(col. 10, l. 34-52 & Figs. 11-15);
- receiving demand data feedback from the client together with demand data feedback from other clients of the segment, the demand data comprising an indication by the

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- client of the desirability of at least one particular piece of content in the content descriptor file (col. 10, l. 42-53 & Figs. 11-15);
- constructing an updated list of content to be broadcast to clients of the segment using the received demand data feedback (new reservation table with newly added subscriber(s))(col. 10, l. 54-65); and
 - broadcasting an updated content descriptor file (col. 10, l. 54-65).

Ishizaki further discloses that the grouping of reservations is done to conserve bandwidth (col. 6, l. 24-67). Ishizaki does not specifically disclose broadcasting a content descriptor schedule signal to a client to indicate a time at which a content descriptor file is to be broadcast to the client and a unique identifier of the content descriptor file, broadcasting the content descriptor file to the clients at the indicated time, and broadcasting a signal to the client indicating that the content descriptor file has been broadcasted and how to locate the broadcasted content descriptor file each time the reservation table is transmitted. Skaringer et al. discloses using a data carousel to transmit an electronic program guide (EPG) to subscribers (p. 1, paragraph 3). Download control messages providing information on how to download data messages containing the EPG data are cyclically transmitted over time (p. 1, paragraph 4). The download control message contains delivery parameters of the data messages containing the EPG, including timing, broadcast channel, and file names (p. 2, paragraph 15 & Fig. 2). The examiner interprets this to be “broadcasting a content descriptor schedule signal to a client to indicate a time at which a content descriptor file is to be broadcast to the client and a unique identifier of the content descriptor file” and “broadcasting the content descriptor file to the client ... at the indicated time,” as currently claimed. The examiner also interprets this to be

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“broadcasting a signal to the client indicating that the content descriptor file has been broadcasted and how to locate the broadcasted content descriptor file,” because the download control message and EPG are transmitted cyclically. It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the program reservation table delivery of Ishizaki to be transmitted via a data carousel, such as that taught by Skaringer et al. in order to allow a content provider to further regulate and limit the amount of bandwidth that needs to be used.

Referring to claims **140**, **155**, and **160**, the combination of Ishizaki and Skaringer et al. teaches the method/apparatus/article of manufacture of claims 139, 154, and 159, respectively, further comprising broadcasting a trigger signal to the client to receive demand data feedback from the client (Ishizaki col. 10, l. 34-38).

Referring to claims **141** and **161**, the combination of Ishizaki and Skaringer et al. teaches the method/article of manufacture of claims 140 and 159, respectively, further comprising determining that a server is ready to receive demand data feedback and wherein broadcasting a trigger signal comprises broadcasting a trigger signal only if the server is ready to receive demand data feedback (Ishizaki col. 10, l. 34-61).

Referring to claims **143** and **163**, the combination of Ishizaki and Skaringer et al. teaches the method/article of manufacture of claims 139 and 159, respectively, wherein receiving demand data feedback further comprises receiving demand data feedback from the client with demand data feedback from other clients of the segment (Ishizaki Figs. 11-15).

Referring to claims **144** and **194**, the combination of Ishizaki and Skaringer et al. teaches the method/system of claims 139 and 193, respectively, wherein the content descriptor schedule

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signal is embedded within a file that is broadcast (as taught by Skaringer et al.)(Skaringer et al. (Fig. 2).

Referring to claim **145**, the combination of Ishizaki and Skaringer et al. teaches the method of claim 139, further comprising generating the content descriptor file based on demand data feedback prior to broadcasting the content descriptor file (Ishizaki col. 10, l. 21-25).

Referring to claims **146** and **195**, the combination of Ishizaki and Skaringer et al. teaches the method/system of claims 139 and 193, respectively, wherein broadcasting a content descriptor schedule signal comprises broadcasting the content descriptor schedule signal using a signaling protocol including one of internet protocol (IP), digital video broadcast signal (DVB) (as taught by Skaringer et al.)(Skaringer et al. p. 1, paragraph 3) or program and system information protocol (PSIP).

NOTE: The USPTO considers the applicant's "one of" language to be anticipated by any reference containing any of the subsequent corresponding elements.

Referring to claim **147**, the combination of Ishizaki and Skaringer et al. teaches the method of claim 139, further comprising assigning a unique identifier to a content descriptor file, wherein the content descriptor file is recognized by the each client as a content descriptor file in response to the unique identifier assigned to the content descriptor file (as taught by Skaringer et al.)(Skaringer et al. Fig. 2).

Referring to claim **148**, the combination of Ishizaki and Skaringer et al. teaches the method of claim 147, wherein broadcasting a content descriptor schedule signal includes broadcasting the unique identifier (as taught by Skaringer et al.)(Skaringer et al. Fig. 2).

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Referring to claim **149**, the combination of Ishizaki and Skaringer et al. teaches the method of claim 139, the segment is defined as one or more clients of a subset based on one of geography, network connection (Ishizaki Figs. 4, 5, 15) or rights vectors.

NOTE: The USPTO considers the applicant's "one of" language to be anticipated by any reference containing any of the subsequent corresponding elements.

Referring to claim **150**, the combination of Ishizaki and Skaringer et al. teaches the method of claim 139, wherein constructing an updated list of content comprises prioritizing the content in response to the demand data feedback (content is delivered if the user requests it. The broadcast time is determined by the user. The cost of the program is determined by the number of users requesting it)(Ishizaki col. 9, l. 19-44 & col. 10, l. 21-25).

Referring to claim **151**, the combination of Ishizaki and Skaringer et al. teaches the method of claim 150, wherein prioritizing the content comprises prioritizing the order in which the content is broadcasted (based on broadcast time entered by user)(Ishizaki col. 10, l. 21-25).

Referring to claims **152** and **157**, the combination of Ishizaki and Skaringer et al. teaches the method/apparatus of claims 139 and 154, respectively, wherein the content descriptor file comprises attributes to describe content that is available for content, but does not include the content or clips of the content (Ishizaki Figs. 11-15).

Referring to claim **154**, Ishizaki discloses an apparatus, comprising:

- a processor 105 having circuitry to execute instructions (col. 4, l. 45-53 & Fig. 1);
- a broadcast interface 109 coupled to the processor, the broadcast interface coupled to send broadcasts to one or more clients (Fig. 1);

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- a communications interface coupled to the processor, the communications interface coupled to receive communications from one or more clients (col. 10, l. 18-25);
- a storage device coupled to the processor, having instructions stored therein (col. 4, l. 45-53 & Fig. 1), which when executed cause the apparatus to perform operations comprising:
 - broadcasting a content descriptor file to a client together with other clients of a segment, the content descriptor file describing available media content that may be broadcast to the client (a program reservation table is delivered to all requesting subscribers of a particular distribution route indicating programs currently requested for distribution)(col. 10, l. 34-52 & Figs. 11-15);
 - receiving demand data feedback from the client together with demand data feedback from other clients of the segment, the demand data comprising an indication by the client of the desirability of at least one particular piece of content in the content descriptor file (col. 10, l. 42-53 & Figs. 11-15);
 - constructing an updated list of content to be broadcast to clients of the segment using the received demand data feedback (new reservation table with newly added subscriber(s))(col. 10, l. 54-65); and
 - broadcasting an updated content descriptor file (col. 10, l. 54-65).

Ishizaki further discloses that the grouping of reservations is done to conserve bandwidth (col. 6, l. 24-67). Ishizaki does not specifically disclose broadcasting a content descriptor schedule signal to a client to indicate a time at which a content descriptor file is to be broadcast to the client and a unique identifier of the content descriptor file, broadcasting the content descriptor

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file to the clients at the indicated time, and broadcasting a signal to the client indicating that the content descriptor file has been broadcasted and how to locate the broadcasted content descriptor file each time the reservation table is transmitted. Skaringer et al. discloses using a data carousel to transmit an electronic program guide (EPG) to subscribers (p. 1, paragraph 3). Download control messages providing information on how to download data messages containing the EPG data are cyclically transmitted over time (p. 1, paragraph 4). The download control message contains delivery parameters of the data messages containing the EPG, including timing, broadcast channel, and file names (p. 2, paragraph 15 & Fig. 2). The examiner interprets this to be “broadcasting a content descriptor schedule signal to a client to indicate a time at which a content descriptor file is to be broadcast to the client and a unique identifier of the content descriptor file” and “broadcasting the content descriptor file to the client ... at the indicated time,” as currently claimed. The examiner also interprets this to be “broadcasting a signal to the client indicating that the content descriptor file has been broadcasted and how to locate the broadcasted content descriptor file,” because the download control message and EPG are transmitted cyclically. It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the program reservation table delivery of Ishizaki to be transmitted via a data carousel, such as that taught by Skaringer et al. in order to allow a content provider to further regulate and limit the amount of bandwidth that needs to be used.

Referring to claim **156**, the combination of Ishizaki and Skaringer et al. teaches the apparatus of claim 154, wherein the apparatus is further caused to perform operations comprising broadcasting the content descriptor file identified by a general purpose identifier (as taught by Skaringer et al.)(Skaringer et al. Fig. 2); broadcasting a signal to the client to indicate that the

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content descriptor file has been broadcast, the signal to indicate how to locate the content descriptor file using the general purpose identifier (cyclical broadcast of download control message)(as taught by Skaringer et al.)(Skaringer et al. Fig. 2).

Referring to claim **159**, Ishizaki discloses an article of manufacture comprising a machine-readable medium excluding carrier wave signals having instructions stored therein which when executed by a computer cause the computer to perform operations comprising:

- broadcasting a content descriptor file to a client together with other clients of a segment, the content descriptor file describing available media content that may be broadcast to the client (a program reservation table is delivered to all requesting subscribers of a particular distribution route indicating programs currently requested for distribution)(col. 10, l. 34-52 & Figs. 11-15);
- receiving demand data feedback from the client together with demand data feedback from other clients of the segment, the demand data comprising an indication by the client of the desirability of at least one particular piece of content in the content descriptor file (col. 10, l. 42-53 & Figs. 11-15);
- constructing an updated list of content to be broadcast to clients of the segment using the received demand data feedback (new reservation table with newly added subscriber(s))(col. 10, l. 54-65); and
- broadcasting an updated content descriptor file (col. 10, l. 54-65).

Ishizaki further discloses that the grouping of reservations is done to conserve bandwidth (col. 6, l. 24-67). Ishizaki does not specifically disclose broadcasting a content descriptor schedule signal to a client to indicate a time at which a content descriptor file is to be broadcast to the

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client and a unique identifier of the content descriptor file, broadcasting the content descriptor file to the clients at the indicated time, and broadcasting a signal to the client indicating that the content descriptor file has been broadcasted and how to locate the broadcasted content descriptor file each time the reservation table is transmitted. Skaringer et al. discloses using a data carousel to transmit an electronic program guide (EPG) to subscribers (p. 1, paragraph 3). Download control messages providing information on how to download data messages containing the EPG data are cyclically transmitted over time (p. 1, paragraph 4). The download control message contains delivery parameters of the data messages containing the EPG, including timing, broadcast channel, and file names (p. 2, paragraph 15 & Fig. 2). The examiner interprets this to be “broadcasting a content descriptor schedule signal to a client to indicate a time at which a content descriptor file is to be broadcast to the client and a unique identifier of the content descriptor file” and “broadcasting the content descriptor file to the client ... at the indicated time,” as currently claimed. The examiner also interprets this to be “broadcasting a signal to the client indicating that the content descriptor file has been broadcasted and how to locate the broadcasted content descriptor file,” because the download control message and EPG are transmitted cyclically. It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the program reservation table delivery of Ishizaki to be transmitted via a data carousel, such as that taught by Skaringer et al. in order to allow a content provider to further regulate and limit the amount of bandwidth that needs to be used.

Referring to claim **164**, Ishizaki discloses a method, comprising:

- receiving a content descriptor file at the client together with other clients of a segment, the content descriptor file describing available media content that may be

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- broadcast to the client (a program reservation table is delivered to all requesting subscribers of a particular distribution route indicating programs currently requested for distribution)(col. 10, l. 34-52 & Figs. 11-15);
- locating the content descriptor file (col. 10, l. 34-53);
 - processing the content descriptor file to generate demand data feedback, the demand data comprising an indication by the client of the desirability of at least one particular piece of content and (col. 10, l. 42-53 & Figs. 11-15);
 - sending the generated demand data feedback from the client (col. 10, l. 42-61);
 - receiving an updated content descriptor file (col. 10, l. 54-65).

Ishizaki further discloses that the grouping of reservations is done to conserve bandwidth (col. 6, l. 24-67). Ishizaki does not specifically disclose receiving a content descriptor schedule signal at a client to indicate a time at which a content descriptor file is to be broadcast to the client and a unique identifier of the content descriptor file, receiving the content descriptor file at the indicated time, and receiving a signal to the client indicating that the content descriptor file has been broadcasted and how to locate the broadcasted content descriptor file each time the reservation table is transmitted. Skaringer et al. discloses using a data carousel to transmit an electronic program guide (EPG) to subscribers (p. 1, paragraph 3). Download control messages providing information on how to download data messages containing the EPG data are cyclically transmitted over time (p. 1, paragraph 4). The download control message contains delivery parameters of the data messages containing the EPG, including timing, broadcast channel, and file names (p. 2, paragraph 15 & Fig. 2). The examiner interprets this to be “receiving a content descriptor schedule signal at a client to indicate a time at which a content descriptor file is to be

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broadcast to the client and a unique identifier of the content descriptor file” and “receiving the content descriptor file at the client ... at the indicated time,” as currently claimed. The examiner also interprets this to be “receiving a signal to the client indicating that the content descriptor file has been broadcasted and how to locate the broadcasted content descriptor file,” because the download control message and EPG are transmitted cyclically. It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the program reservation table delivery of Ishizaki to be transmitted and received from a data carousel, such as that taught by Skaringer et al. in order to allow a content provider to further regulate and limit the amount of bandwidth that needs to be used.

Referring to claims **165** and **184**, the combination of Ishizaki and Skaringer et al. teaches the method/apparatus of claims 164 and 183, respectively, further comprising notifying a process in a client system to process the content descriptor file in response to receiving the content descriptor file (inherent to displaying the reservation table)(Ishizaki col. 10, l. 34-41).

Referring to claim **166**, the combination of Ishizaki and Skaringer et al. teaches the method of claim 164, wherein receiving the content descriptor file at the broadcast time comprises receiving the content descriptor schedule signal using a signaling protocol including one of internet protocol (IP), digital video broadcast signal (DVB) (as taught by Skaringer et al.)(Skaringer et al. p. 1, paragraph 3) or program and system information protocol (PSIP).

NOTE: The USPTO considers the applicant's “one of” language to be anticipated by any reference containing any of the subsequent corresponding elements.

Referring to claim **167**, the combination of Ishizaki and Skaringer et al. teaches the method of claim 164, wherein generating demand data feedback comprises generating ranking

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feedback (every time a viewer selects a program for reservation, the number of reservations or “demand” increases)(Ishizaki Figs. 11-15).

Referring to claim **168**, the combination of Ishizaki and Skaringer et al. teaches the method of claim 164, wherein generating the demand data feedback comprises generating rating feedback (every time a viewer selects a program for reservation, the number of reservations or “rating” increases)(Ishizaki Figs. 11-15).

Referring to claim **169**, the combination of Ishizaki and Skaringer et al. teaches the method of claim 164, wherein the information indicating how to locate the content descriptor file includes one of a frequency (broadcast channel)(as taught by Skaringer et al.)(Skaringer et al. p. 2, paragraph 15), an internet protocol (IP) port or an IP address.

NOTE: The USPTO considers the applicant's “one of” language to be anticipated by any reference containing any of the subsequent corresponding elements.

Referring to claims **170**, **185**, **188**, and **190**, the combination of Ishizaki and Skaringer et al. teaches the method/apparatus/article of manufacture of claims 164, 183, and 189, further comprising:

- identifying the content descriptor file by a unique identifier assigned to the file (as taught by Skaringer et al.)(Skaringer et al. Fig. 2); and
- storing the file at a content descriptor file location at the client in response to the unique identifier (inherent to displaying the menu)(Ishizaki col. 10, l. 34-41).

Referring to claim **171**, the combination of Ishizaki and Skaringer et al. teaches the method of claim 170, further comprising allocating a buffer to receive the content descriptor file

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while the content descriptor file is being received (inherent to reception of menu and QPSK modem)(Ishizaki col. 5, l. 1-2 & col. 8, l. 56-59).

Referring to claim **172**, the combination of Ishizaki and Skaringer et al. teaches the method of claim 171, further comprising:

- locking a previously received content descriptor file after a content descriptor file is completely received (Ishizaki col. 10, l. 54-61); and
- replacing the previously received content descriptor file with the completely received content descriptor file (Ishizaki col. 10, l. 54-61).

Referring to claim **173**, the combination of Ishizaki and Skaringer et al. teaches the method of claim 164, wherein generating demand data feedback comprises generating a list of rating numbers for content of the content descriptor file (number of reservations)(Ishizaki Figs. 11-15).

Referring to claim **174**, the combination of Ishizaki and Skaringer et al. teaches the method of claim 173, wherein generating a list of rating numbers comprises receiving specific desirability values assigned by a user at the client (whether they desire it or not)(Figs. 11-15).

Referring to claim **176**, the combination of Ishizaki and Skaringer et al. teaches the method of claim 164, wherein generating demand data feedback comprises generating demand data feedback automatically by the client and transparent to a user at the client (user registers the reservation and the STB automatically processes the reservation and sends it to the Cable TV center)(Ishizaki col. 10, l. 42-61).

Referring to claims **177** and **186**, the combination of Ishizaki and Skaringer et al. teaches the method/apparatus of claims 164 and 183, respectively, further comprising counting the

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number of pieces of content that have been rated since a prior sending of demand data feedback and wherein sending the generated demand data feedback comprises sending the generated demand data feedback when the counted number exceeds a threshold number (sent after the user registers one reservation)(Ishizaki col. 10, l. 42-61).

Referring to claim **182**, the combination of Ishizaki and Skaringer et al. teaches the method of claim 164, further comprising maintaining a demand data table at the client to generate the demand data feedback, the demand data table comprising a next treatment indicator to track future actions for a piece of content, the future actions including capture to capture a corresponding full content and replace to replace a corresponding content with other content (user is given a chance to confirm their choice for reception or can choose a different item)(Ishizaki col. 10, l. 54-65 & Fig. 8).

Referring to claim **183**, Ishizaki discloses an apparatus, comprising:

- a processor 201 having circuitry to execute instructions (Fig. 2);
- a communications interface 205 coupled to the processor, the communications interface coupled to receive broadcasts from a server (Fig. 2);
- a storage device 203, 204 coupled to the processor, having instructions stored therein (Fig. 2), which when executed cause the apparatus to perform operations comprising:
 - o receiving a content descriptor file at the client together with other clients of a segment, the content descriptor file describing available media content that may be broadcast to the client (a program reservation table is delivered to all requesting subscribers of a particular distribution route indicating programs currently requested for distribution)(col. 10, l. 34-52 & Figs. 11-15);

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- locating the content descriptor file (col. 10, l. 34-53);
- processing the content descriptor file to generate demand data feedback, the demand data comprising an indication by the client of the desirability of at least one particular piece of content and (col. 10, l. 42-53 & Figs. 11-15);
- sending the generated demand data feedback from the client (col. 10, l. 42-61);
- receiving an updated content descriptor file (col. 10, l. 54-65).

Ishizaki further discloses that the grouping of reservations is done to conserve bandwidth (col. 6, l. 24-67). Ishizaki does not specifically disclose receiving a content descriptor schedule signal at a client to indicate a time at which a content descriptor file is to be broadcast to the client and a unique identifier of the content descriptor file, receiving the content descriptor file at the indicated time, and receiving a signal to the client indicating that the content descriptor file has been broadcasted and how to locate the broadcasted content descriptor file each time the reservation table is transmitted. Skaringer et al. discloses using a data carousel to transmit an electronic program guide (EPG) to subscribers (p. 1, paragraph 3). Download control messages providing information on how to download data messages containing the EPG data are cyclically transmitted over time (p. 1, paragraph 4). The download control message contains delivery parameters of the data messages containing the EPG, including timing, broadcast channel, and file names (p. 2, paragraph 15 & Fig. 2). The examiner interprets this to be “receiving a content descriptor schedule signal at a client to indicate a time at which a content descriptor file is to be broadcast to the client and a unique identifier of the content descriptor file” and “receiving the content descriptor file at the client ... at the indicated time,” as currently claimed. The examiner

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also interprets this to be “receiving a signal to the client indicating that the content descriptor file has been broadcasted and how to locate the broadcasted content descriptor file,” because the download control message and EPG are transmitted cyclically. It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the program reservation table delivery of Ishizaki to be transmitted and received from a data carousel, such as that taught by Skaringer et al. in order to allow a content provider to further regulate and limit the amount of bandwidth that needs to be used.

Referring to claims **187** and **195**, the combination of Ishizaki and Skaringer et al. teaches the apparatus of claims 183 and 193, respectively, wherein the apparatus is further caused to perform operations comprising determining how to locate the content descriptor file in response to content descriptor schedule signal (as taught by Skaringer et al.)(Skaringer et al. p. 2, paragraph 15 & Fig. 2).

Referring to claim **189**, Ishizaki discloses an article of manufacture comprising a machine-readable medium excluding carrier wave signals having instructions stored therein which when executed by a computer cause the computer to perform operations comprising:

- receiving a content descriptor file at the client together with other clients of a segment, the content descriptor file describing available media content that may be broadcast to the client (a program reservation table is delivered to all requesting subscribers of a particular distribution route indicating programs currently requested for distribution)(col. 10, l. 34-52 & Figs. 11-15);
- locating the content descriptor file (col. 10, l. 34-53);

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- processing the content descriptor file to generate demand data feedback, the demand data comprising an indication by the client of the desirability of at least one particular piece of content and (col. 10, l. 42-53 & Figs. 11-15);
- sending the generated demand data feedback from the client (col. 10, l. 42-61);
- receiving an updated content descriptor file (col. 10, l. 54-65).

Ishizaki further discloses that the grouping of reservations is done to conserve bandwidth (col. 6, l. 24-67). Ishizaki does not specifically disclose receiving a content descriptor schedule signal at a client to indicate a time at which a content descriptor file is to be broadcast to the client and a unique identifier of the content descriptor file, receiving the content descriptor file at the indicated time, and receiving a signal to the client indicating that the content descriptor file has been broadcasted and how to locate the broadcasted content descriptor file each time the reservation table is transmitted. Skaringer et al. discloses using a data carousel to transmit an electronic program guide (EPG) to subscribers (p. 1, paragraph 3). Download control messages providing information on how to download data messages containing the EPG data are cyclically transmitted over time (p. 1, paragraph 4). The download control message contains delivery parameters of the data messages containing the EPG, including timing, broadcast channel, and file names (p. 2, paragraph 15 & Fig. 2). The examiner interprets this to be “receiving a content descriptor schedule signal at a client to indicate a time at which a content descriptor file is to be broadcast to the client and a unique identifier of the content descriptor file” and “receiving the content descriptor file at the client ... at the indicated time,” as currently claimed. The examiner also interprets this to be “receiving a signal to the client indicating that the content descriptor file has been broadcasted and how to locate the broadcasted content descriptor file,” because the

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download control message and EPG are transmitted cyclically. It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the program reservation table delivery of Ishizaki to be transmitted and received from a data carousel, such as that taught by Skaringer et al. in order to allow a content provider to further regulate and limit the amount of bandwidth that needs to be used.

Referring to claims **191** and **197**, the combination of Ishizaki and Skaringer et al. teaches the article of manufacture/system of claims 189 and 193, respectively, further comprising instructions for allocating a temporary buffer for the content descriptor file to be buffered while being received (inherent to reception of menu and QPSK modem)(Ishizaki col. 5, l. 1-2 & col. 8, l. 56-59), locking a previous version of the content descriptor file after the content descriptor file is buffered (Ishizaki col. 10, l. 54-61), and replacing contents of the previous version of the content descriptor file with the buffered content descriptor file (Ishizaki col. 10, l. 54-61).

Referring to claim **192**, the combination of Ishizaki and Skaringer et al. teaches the article of manufacture of claim 189, further comprising instructions for generating demand data feedback related to files stored at the content descriptor file location (Ishizaki Figs. 11-15).

Referring to claim **193**, Ishizaki discloses a system, comprising:

- a server (Figs. 1, 4, 5);
- one or more clients coupled to the server (Figs. 4, 5);
- wherein the server is coupled to broadcast a content descriptor file to the clients of a segment, the content descriptor file describing available media content that may be broadcast to the clients (a program reservation table is delivered to all requesting

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subscribers of a particular distribution route indicating programs currently requested for distribution)(col. 10, l. 34-52 & Figs. 11-15);

- wherein the one or more clients are coupled to receive the content descriptor file (col. 10, l. 34-52 & Figs. 11-15) and process the content descriptor file to generate demand data feedback to be provided to the server, the demand data comprising an indication by the client of the desirability of at least one particular piece of content in the content descriptor file (col. 10, l. 42-53 & Figs. 11-15);
- wherein the server is coupled to construct an updated list of content to be broadcast to clients of the segment using the received demand data feedback (new reservation table with newly added subscriber(s))(col. 10, l. 42-65 & Figs. 11-15);
- wherein the server is coupled to broadcast the updated content descriptor file at the indicated time (col. 10, l. 54-65); and
- wherein the one or more clients are coupled to receive the updated content descriptor file (col. 10, l. 54-65).

Ishizaki further discloses that the grouping of reservations is done to conserve bandwidth (col. 6, l. 24-67). Ishizaki does not specifically disclose that the server is coupled to broadcast a content descriptor schedule signal to the clients to indicate a time at which a content descriptor file is to be broadcast to the clients and a unique identifier of the content descriptor file and wherein the one or more clients are coupled to receive the content descriptor schedule signal broadcast by the server at the indicated time and that the server is coupled to broadcast another content descriptor schedule signal to the client to indicate a time at which an updated content descriptor file is to be broadcast and that the one or more clients are coupled to receive the another content descriptor

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schedule signal broadcast by the server at the indicated time. Skaringer et al. discloses using a data carousel to transmit an electronic program guide (EPG) to subscribers (p. 1, paragraph 3). Download control messages providing information on how to download data messages containing the EPG data are cyclically transmitted over time (p. 1, paragraph 4). The download control message contains delivery parameters of the data messages containing the EPG, including timing, broadcast channel, and file names (p. 2, paragraph 15 & Fig. 2). The examiner interprets this to be broadcasting “a content descriptor schedule signal to the clients to indicate a time at which a content descriptor file is to be broadcast to the clients and a unique identifier of the content descriptor file” and “wherein the one or more clients are coupled to receive the content descriptor schedule signal broadcast by the server ... at the indicated time,” as currently claimed. It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the program reservation table delivery of Ishizaki to be transmitted and received from a data carousel, such as that taught by Skaringer et al. in order to allow a content provider to further regulate and limit the amount of bandwidth that needs to be used.

Referring to claim **196**, the combination of Ishizaki and Skaringer et al. teaches the system of claim 193:

- wherein the server is coupled to assign a unique identifier to the content descriptor file (as taught by Skaringer et al.)(Skaringer et al. Fig. 2);
- wherein the content descriptor file is recognized by each client as a content descriptor file in response to the unique identifier assigned to the content descriptor file (as taught by Skaringer et al.)(Skaringer et al. Fig. 2);

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- wherein the one or more clients are coupled to store the content descriptor file at a content descriptor file location at each respective client in response to the unique identifier (inherent to displaying the menu)(Ishizaki col. 10, l. 34-41).

Referring to claim **197**, the combination of Ishizaki and Skaringer et al. teaches the system of claim 193,

- wherein the server is coupled to assign a general purpose identifier to the content descriptor file (as taught by Skaringer et al.)(Skaringer et al. Fig. 2);
- wherein the server is coupled to broadcast a signal to said one or more clients to indicate that the content descriptor file has been broadcast to said one or more clients (cyclical broadcast of download control message)(as taught by Skaringer et al.)(Skaringer et al. Fig. 2); and
- wherein the one or more clients are coupled to receive the signal indicating that the content descriptor file has been broadcast, the signal to indicate to the one or more clients how to locate the content descriptor file using the general purpose identifier (as taught by Skaringer et al.)(Skaringer et al. p. 2, paragraph 15 & Fig. 2).

13. Claims **142, 162, 175, 178-181** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishizaki in view of Skaringer et al., and further in view of Payton (of record).

Referring to claims **142** and **162**, the combination of Ishizaki and Skaringer et al. teaches the method/apparatus of claims 139 and 159, respectively, wherein broadcasting a trigger signal comprises broadcasting a trigger signal to request demand data feedback from a client in a segment (Ishizaki col. 10, l. 42-53 & Figs. 11-15). The combination of Ishizaki and Skaringer et

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al. does not specifically teach that the trigger signal requests demand data feedback from all clients in a segment. Payton discloses receiving demand data indicating which content each client is interested in in response to a periodic trigger (col. 6, l. 63-67; col. 7, l. 61-67; col. 8, l. 1-10; & col. 10, l. 12-16). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the user interest request method of Ishizaki to request user interest in programs from all users in response to a periodic trigger, such as that taught by Payton in order to better constrain the amount of bandwidth that is used.

Referring to claims **175**, **178**, and **179**, the combination of Ishizaki and Skaringer et al. teaches the method of claim 164. The combination of Ishizaki and Skaringer et al. does not specifically teach that generating demand data feedback uses the amount of content consumed by a user at the client or maintaining relevance values at the client for the content of the content descriptor file, the relevance values indicating the relevance of an associated attribute of the content for predicting desirability to a user. Payton discloses a collaborative filtering system for conserving bandwidth that synthesizes the preferences of a group of subscribers and delivers the content the majority of subscribers are likely to prefer (col. 4, l. 11-16, 34-40 & col. 5, l. 6-21). Payton discloses allowing users to rate content they have seen and would like to see more of (col. 6, l. 36-44), as well as monitoring the user's regular viewing habits to further define the user's preferences (col. 6, l. 36-50). These ratings and habits are stored locally in a subscriber user profile for use in determining which content the user wants to obtain from the headend (col. 6, l. 36-50). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the user reservation system of Ishizaki in the combination of Ishizaki and Skaringer et al. to include explicit user reservation demand, as well as a user's

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regular viewing habits to determine which content to broadcast, such as that taught by Payton in order to efficiently utilize available bandwidth (Payton col. 1, l. 39-49).

Referring to claims **180** and **181**, the combination of Ishizaki and Skaringer et al. teaches the method of claim 164. The combination of Ishizaki and Skaringer et al. does not specifically teach maintaining believability factors at the client for the content of the content descriptor file, the believability factors being weighting factors to apply to an associated attribute value of the content in generating the demand data and wherein generating demand data feedback comprises applying the believability factors and further comprising increasing a believability factor when the associated attribute value accurately predicts that a user will access the corresponding content. Payton discloses a collaborative filtering system for conserving bandwidth that synthesizes the preferences of a group of subscribers and delivers the content the majority of subscribers are likely to prefer (col. 4, l. 11-16, 34-40 & col. 5, l. 6-21). Payton discloses allowing users to rate content they have seen and would like to see more of (col. 6, l. 36-44), as well as monitoring the user's regular viewing habits to further define the user's preferences (col. 6, l. 36-50). These ratings and habits are stored locally in a subscriber user profile for use in determining which content the user wants to obtain from the headend (col. 6, l. 36-50). The examiner interprets the user's viewing habits to be believability factors, because they are updated based on which programs a viewer regularly watches. It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the user reservation system of Ishizaki in the combination of Ishizaki and Skaringer et al. to include explicit user reservation demand, as well as a user's regular viewing habits to determine which content to

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broadcast, such as that taught by Payton in order to efficiently utilize available bandwidth (Payton col. 1, l. 39-49).

14. Claims **153, 158** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishizaki in view of Skaringer et al., and further in view of Dunn.

Referring to claims **153** and **158**, the combination of Ishizaki and Skaringer et al. teaches the method/apparatus of claims 139 and 154, respectively. The combination of Ishizaki and Skaringer et al. does not specifically teach that the updated list of content includes further descriptive content for content in the content descriptor file, the further descriptive content including at least one of movie trailers, movie scenes, and a clip. Dunn discloses a VOD program guide where the user can select a title from a titles button (col. 8, l. 1-11; col. 12, l. 17-26; & Figs. 4, 5). Upon selection of a desired program, the headend returns a trailer of the program (col. 12, l. 26-47). If the viewer settles on this program, they order it (col. 12, l. 62-67). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the updated list in the combination of Ishizaki and Skaringer et al. to include program trailers before requiring the user to purchase the program, such as that taught by Dunn in order to better entice viewers into a renting a movie or TV show (Dunn col. 1, l. 41-43).

NOTE: The USPTO considers the applicant's "at least one of" language to be anticipated by any reference containing any of the subsequent corresponding elements.

15. Claims **200, 201, 210, 212, 215, 216, 218** are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunn in view of Payton.

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Referring to claims **200, 201, 210, 212, 215, 216, and 218**, Dunn discloses the method/article/system of claims 198, 208, 211, 214, and 217. Dunn further discloses receiving a list of personal favorites from a user to determine which video content a user might wish to watch some day (col. 7, l. 21-24). Dunn does not specifically disclose receiving updated demand data indicating which full content has been stored by the client or which full content has been consumed by the client. Dunn further does not specifically disclose creating and updating the demand table in response to filtering content based interests of a current user and user behavior of a previous user at the client. Payton discloses a digital information system for delivering virtual on-demand information over digital transport systems. A local filtering system predicts which content a subscriber might like, and therefore request (see Abstract). Payton makes these predictions by prompting a user to rate programs that have been stored and consumed by the client (col. 6, l. 33-50). Payton further discloses synthesizing the interests of multiple users at a single device and transmitting the collective interests to the server (col. 9, l. 62-67 & col. 10, l. 12-16). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify Dunn to include receiving user ratings of stored and consumed content and the collective interests of multiple users using the local device, such as that taught by Payton in order to provide more meaningful content to the viewer (Dunn col. 1, l. 51-53), thereby reducing the number of subscriber requests that must be provided on-demand (Payton col. 3, l. 35-38).

Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL VAN HANDEL whose telephone number is (571)272-5968. The examiner can normally be reached on 8:00am-5:30pm Mon.-Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on 571-272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Van Handel/
Examiner, Art Unit 2424

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